BRIDGES

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Engineered for the Future 10

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22 Twenty-five Years of Gala



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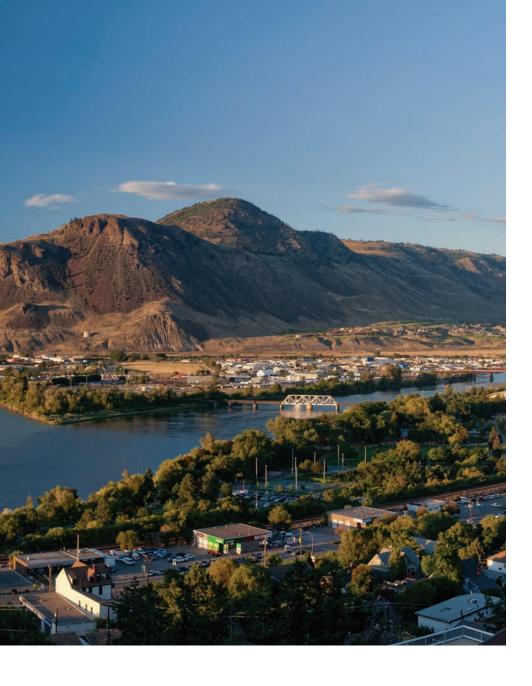
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ON THE COVER

TRU Engineering Transfer student Ryan White uses an electron deflection tube to observe the motion of electrons under the influence of an electric field. TRU's proposed Bachelor and Master of Engineering programs will allow students like Ryan to complete degrees in Kamloops. Story page 10.

(Cover photo: Alex Mey Photography)

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TRU TODAY



TOTAL >57,000



>33,000

CANADIAN ALUMNI

INTERNATIONAL ALUMNI



Live in the BC Interior & Kootenays

Live in other regions of BC

Rest of Canada & the World

ANNUAL UNIQUE STUDENT HEADCOUNT

17,566 (2000/01)



(2015/16)



ABORIGINAL STUDENTS (2015/16)



INTERNATIONAL STUDENTS (2015/16)

CAMPUSES & REGIONAL CENTRES

WILLIAMS LAKE

100 MILE HOUSE

CLEARWATER

ASHCROFT &

CACHE CREEK ● BARRIERE

LILLOOET

LYTTON

KAMLOOPS

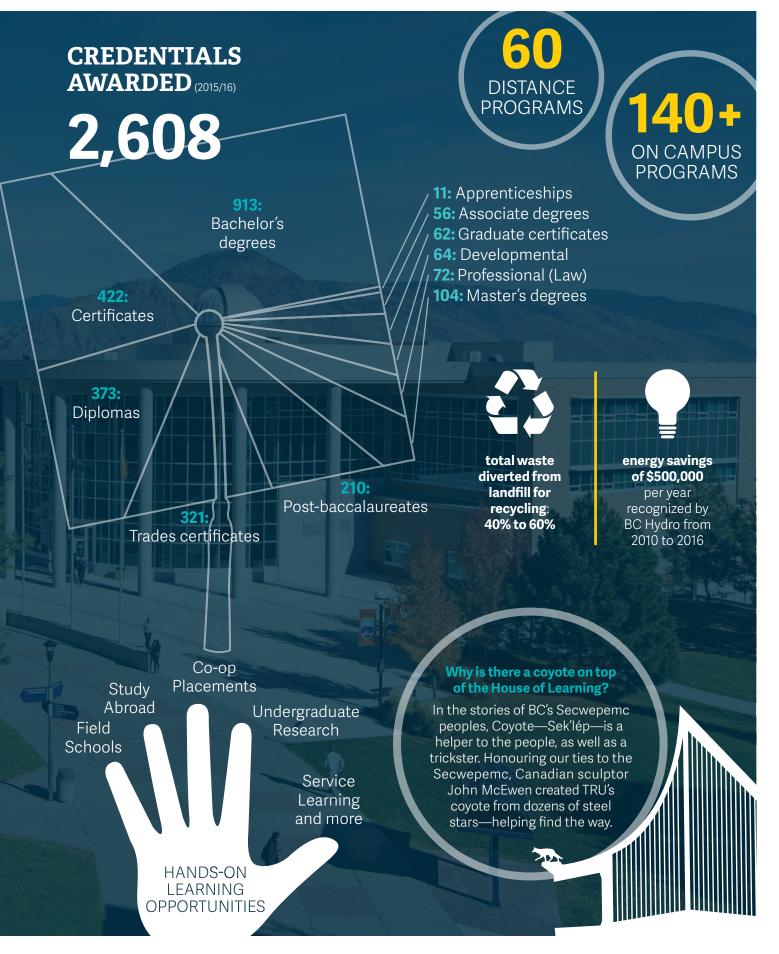
TRU'S ECONOMIC **IMPACT**

>\$650,000,000

on provincial economy

\$355,000,000

on Kamloops and region



The Fourth Industrial Revolution?

SOME SAY THAT RAPID CHANGES in the nature of work are the fourth industrial revolution. Really? So I googled it and found out what the first three were: 1) the transition from agricultural to urban industrial societies via iron and steam; 2) huge expansion of industry due to steel, oil, electricity and the internal combustion engine; and 3) the digital revolution of computers and the Internet. And now, some say 4) is the automation of decision-making in everyday life, work and even learning due to artificial intelligence.

Bottom line: computers can automate many complicated manual and cognitive tasks better than humans. Automation is creating a prosperity gap—an economic chasm between those who have the highly specific knowledge and lifelong learning skills required by the new knowledge economy, and those who do not and face unemployment as old jobs are eliminated.

Enter TRU!

In this issue of Bridges, discover how our new Master of Nursing degree program promotes leadership skills and our proposed Bachelor and Master of Engineering programs will educate future software, computer and electrical engineers. Read how our newest Bachelor of Education program addresses the shortfall in science and math secondary school teachers. And learn more regarding the BC government's recent approval of two graduate programs in environmental economics.

Further, the groundbreaking work of our recent Canada Research Chairs (CRCs) will benefit Kamloops and its regional communities—and will reverberate globally.

Accordingly, we are creating new learning spaces—the Industrial Training and Technology Centre and the Nursing and Population Health building—to greatly improve our delivery of high-quality teaching, learning and research.

New people, programming and buildings will support innovation, job creation and quality of life in our region.

And—through Open Learning—our learners can exploit the digital revolution to get an



excellent education, catch up and keep up with the new knowledge economy—regardless of their background, where they live, or their stage of life.

Finally, thanks to recent investments in TRU by our governments and by our friends and graduates through the TRU Foundation's campaign, our students will have the support they need to overcome the prosperity gap.

Alan Shaver President and Vice-Chancellor



NURSING AT THE NEXT LEVEL

BY KELLEY O'GRADY



TRU'S SCHOOL OF NURSING

HAS a rich history in providing nursing education over the past 35-plus years. In 2016, a new Master of Nursing (MN) program was approved and is intended to start in May 2017.

"Our School of Nursing is well-recognized nationally for its excellent faculty and graduates. Therefore, I am delighted that we are now offering a Master of Nursing program right here in Kamloops," says President and Vice-Chancellor Alan Shaver.

The MN is flexible in its delivery, inviting graduate students to map a degree path through full or parttime studies, making it convenient for nursing degree-holders and registered nurses to continue with their professional and educational goals. It also offers opportunities for professional nurses to gain leadership roles within the field, advance health

care knowledge and obtain clinical education to work in academia.

"Nurses have a great deal of knowledge about the direction and future of health care in our province," says Dean of Nursing Donna Murnaghan. "The Master of Nursing program will contribute to nurses advancing change, research and leadership within health care."

The 33-credit program consists of five core courses with directed study options and opportunities to focus on Aboriginal health leadership, clinical education and practice, and nursing education. It also offers flexible progress options of two to three years, to a maximum of five years, and the choice to complete a thesis, major project or major paper.

Graduates of the MN program will possess the leadership and professional capacity, research skills and workplace competencies to engage in clinical practice at the advanced level and to earn positions in local, provincial, national or international health care areas. Other advanced opportunities include teaching roles in academia, administration, research and private practice.

"We are really excited to support nurses in reaching their potential as advanced leaders within diverse and evolving health care systems," says Nicola Waters, MN program coordinator.

The MN was the third new graduate program launched at TRU in 2016, expanding the university's offerings to six master's degrees.

Above: Florriann Fehr, Joyce O'Mahony and Lisa Bourque Bearskin are among the nursing faculty members teaching in the MN.

Apply now: tru.ca/mn

NEW BUILDING ON NURSING'S HORIZON

BY KELLEY O'GRADY





AS HEALTH CARE DEMANDS

INCREASE nationwide, many communities in BC are facing a shortage of skilled health care professionals who can meet the care needs of diverse populations essential for those in rural and remote communities.

TRU's new \$30.6 million Nursing and Population Health (NPH) building will address these conditions by expanding seats and programming, and create an educational environment where students can thrive, access state-ofthe-art technology and gain skills critical to providing high quality care.

"We are truly excited about the opportunities that our new Nursing and Population Health building will create," says Dean of Nursing Donna Murnaghan. "TRU will attract the brightest students in nursing and health to a learning environment that incorporates high-calibre advanced technology, equipment and resources."

The 4,100 square metre standalone building will support current School of Nursing programs and enable development of new certificate programs in specialty areas such as critical, perioperative, senior, rural and home care. For prospective nursing students who already have an undergraduate degree, an accelerated option will fast-track graduates into the profession to address current shortages.

The province announced an \$8 million contribution this March

toward construction, which will begin in spring 2018. Over \$2.5 million has been raised privately, including major contributions from the Stollery Charitable Foundation and an anonymous donor who will be naming the building. The NPH is expected to open in fall 2020.

"Kamloops and all the communities TRU serves will greatly benefit from graduates who have the knowledge and expertise to deliver the best care possible to the population," says Murnaghan.

From left: Hands-on learning in NPH labs will include state-of-the-art equipment. East face of the NPH building (Rendering by Chernoff Thompson Architects).



The Economics of What Matters

BY ROBIN PHELAN

TRU'S NEWEST MASTER'S **DEGREES, THE** thesis- or projectbased Master of Science in Environmental Economics and Management (MScEEM) and the course-based Master of Environmental Economics and Management (MEEM), are both set to start September 2017.

Students will gain a unique combination of skills and knowledge necessary to incorporate the principles of sustainability into the economic and management decision-

making process in a way that will make them extremely marketable to companies large and small.

"Graduates will have the knowledge and analytical tools required to address the sustainability of many industry sectors, such as fisheries, forestry, agriculture and energy," says Dr. Laura Lamb, program coordinator in the School of Business and Economics.

A master's in environmental economics not only educates students on socially responsible global decision-making, it also enables them to manage the initiatives of diverse stakeholders. therefore opening the door to numerous career opportunities.

As Dean of the School of Business and Economics Michael Henry said in his interview with the Globe and Mail in September, "This will be a unique set of graduates who will be able to live in both worlds and be able to speak in an informed way in both domains."

MASTERS OF STRATEGY

BY ROBIN PHFI AN

A GROUP OF 21 MASTER of

Business Administration (MBA) students came out on top in a competition against peers from the University of British Columbia, Simon Fraser University, University of Victoria and Vancouver Island University (VIU) at the second annual BC MBA Games, held at VIU in Nanaimo Oct. 21 to 23, 2016.

Going into the games, the team was under significant pressure considering TRU had come second in the inaugural 2015 games.

Strategic and overnight case studies, presentations, community fundraising and athletics—including dodgeball and canoe racing—were all part of the competitions.

Management faculty member Nancy Southin coached the strategic case component for the team and

was thrilled that TRU took first in strategy. "It's so exciting when you see people who have worked so hard do so well," she says.

The team placed in an impressive six out of eight events and raised \$6,500 for the Childhood Cancer Canada Foundation.

"Growing up in Dawson Creek, I know how it feels to compete representing a smaller community. You don't get taken seriously," explains co-captain Shamir Mangalji. "Winning this competition proved that smaller universities can challenge and beat the larger universities in academics, athletics and spirit!"

The team feels their win has helped put their program and community on the map.

"We want to thank all of our supporters," says co-captain Steffi Thomas. "We all put in ridiculous hours on top of our regular classroom commitments."

The students are excited that TRU and Kamloops will host the 2017 games and have already begun preparations.

Mike Henry, dean of Business and Economics, says they are looking forward to engaging the local business community in the games. "Local businesses will have the opportunity to network with some of the brightest MBA students from across the province."

TRU expects to host more than 100 students for the 2017 BC MBA Games this fall.

Right: Shamir Mangalji and Steffi Thomas, co-captains of TRU's winning team.







WELDING ON THE WORLD STAGE

BY BART CUMMINS

LATER THIS YEAR. WELDING **STUDENT** Andrew Christensen could be TRU's first medalist at the WorldSkills competition.

Since qualifying for what amounts to the Olympics of trades, Christensen has ramped up his training and is spending 40 to 50 hours a week perfecting everything that will be required during the four-day competition.

Held every two years, WorldSkills 2017 will be held in Abu Dhabi, capital of the United Arab Emirates. from Oct. 14 to 19. More than 1,200 competitors—gold medalists from the qualifiers of 72 countries and regions—will compete in 50 skill categories. In welding, Christensen will be among at least 40 competitors.

It's a big deal.

"When I'm done, I'll have a skill set very few people have," says

Christensen, who is three-quarters through his apprenticeship program. "I'll also have work contacts that will allow me to pick and choose what I want to do after this."

All qualifiers were given blueprints and instructions for most of what they will have to create, allowing Christensen almost a year of training to perfect his speed, techniques, accuracy, project management and other skills.

To prepare, he also competed at the US finals in Livingston, Alabama in February and at the UK championships in Manchester in March, and may find other opportunities to practice.

Welding faculty member Larry Franzen is among Christensen's mentors and coaches. He says the hours of practice and training will pay off come October.

"If Andrew is going to compete on the same stage with everybody else who is training just as hard as he is, maybe that little bit of extra time he puts in each week will be the difference between podium and non-podium."

The Skills Canada program is also providing coaching, guidance and other supports, including official team clothing and meetings with the other members of Team Canada bound for Abu Dhabi.

Above: Apprentice Andrew Christensen practices his welds for the Olympics of trades competitions.



ENGINEERED FOR THE FUTURE

BY BART CUMMINS

THE CEO OF CANADA'S HOTTEST

startup is staking his company's future on a locale that fosters innovation, supports tech and has a readily available skill pool.

For Daniel Rink of iTel Networks, receiving the Startup Canada award for High Growth Entrepreneurship was made possible in part by employees he's recruited from TRU's computer science programs.

Now the local tech sector is about to get even hotter. Premier Christy Clark gave the green light to 1,000 new tech seats throughout BC at the #BCTECH Summit in March, and TRU is poised to fill this need with new Bachelor of Engineering (BEng) and Master of Engineering programs. The proposed programs will allow Rink and the growing number of innovators in the region to play a pivotal role in building and shaping British Columbia and beyond for decades to come.

The BEng will offer specializations in electrical, software and computer engineering—professions that will be in high demand in the region and

across the country through 2020 according to projections by Engineers Canada and the Centre for Spatial Economics in 2015.

"The BC Tech Sector is on the rise and in keeping with this trend, TRU has done a great job of seeing a need and addressing the opportunity to educate skilled tech professionals in Kamloops," says Rink.

"Over the past several years, we have seen a real shift toward technology in the region. The support from TRU and the provincial government will help the local startup community continue to take off and secure Kamloops as a future tech-hub."

TRU's Chair of Engineering Faheem Ahmed sees the programs as a catalyst for economic and population growth.

"There will be an impact on the economy of the region once we have the skilled labour," says Ahmed. "This could attract tech companies here, because the operational costs are less than they are in larger cities."

The proposed BEng builds on TRU's current two-year engineering



transfer program to the University of Victoria, which currently offers 60 first-year seats and 20 second-year seats and receives three applications for each available seat. Years one through three of the BEng could begin as early as fall 2017 with fourth year starting in fall 2018. Space is earmarked in the university's new Industrial Training and Technology Centre opening in 2018.

From top: An engineering transfer class with faculty member George Weremczuk. Dan Rink, iTel Networks.

Building Tech Potential

BY BART CUMMINS

THE NEW INDUSTRIAL TRAINING AND TECHNOLOGY

Centre (ITTC) gives TRU the space to offer training for the in-demand technology and trades jobs of today and tomorrow to hundreds of future TRU students.

At 5,344 square metres, the facility allows for an increase of 550 full time equivalent (FTE) student spaces in TRU's industrial trades and technology programs, including new industrial process technician, power engineering, HVAC/refrigeration technician and machinist trades programs not currently offered.

Supported by over \$20 million in federal and provincial funding, the project officially broke ground on Feb. 9 and is expected to be completed in the fall of 2018.

"Industry support for these new programs was critical in receiving approval for the business case for the new facility," says Dean of Trades and Technology Baldev Pooni.

The new building will also provide space for electrical and industrial electrician programs. Renovations to the existing Trades and Technology building are also planned to accommodate the Architectural and Engineering Technology program and expand student services.

Third-year electrical apprentice Justin Trodd was at the ground-breaking ceremony.

"The addition of this new trades building will improve our labs and classrooms, and will provide a much-needed expansion of the programming at TRU so that more students like myself can come here, enjoy this beautiful city, and learn from some of the very best in a space that directly reflects the quality of education that we are all looking for," he says.

Below: North face of the ITTC building (Rendering by Stantec).





ARTS ALUM FINDS TRIUMF-ANT SUCCESS

BY KELLEY O'GRADY

FROM FASHION TO PHYSICS.

Nic Zdunich has done it all including turning his final co-op position into a full-time job. The 2016 Bachelor of Arts (BA) graduate completed two co-op work-terms at TRIUMF. Canada's National Lab for Particle and Nuclear Physics, before accepting a full-time strategic communications associate position with the company.

Hailing from rural Saskatchewan, the young globe-trotter has lived on three continents, in four Canadian cities and has travelled to 27 countries. all while completing five co-op terms and his BA. With a resumé almost as extensive as his travels, having worked in fashion, events, graphic design and student affairs, it's no surprise he was named TRU's 2016 Co-op Student of the Year.

"Nic approached every work term with energy, enthusiasm and confidence, demonstrating his initiative, sharing his ideas and bringing a can-do attitude to every project or task," says Marion Oke, co-op coordinator.

His involvement in student affairs was equally impressive. As the LGBTQ+ representative for the Students' Union, he joined an international movement to declare lesbian, gay, bisexual, transgender and questioning (LGBTQ+) pride

by painting the BC Interior's first permanent rainbow crosswalk on campus.

"Nic stands out for quite a few reasons—the soft skills he developed outside of the classroom are a direct correlation to his achievements." says Susan Forseille, student employment coordinator.

Zdunich's upbeat approach to life and work is simple, attainable and likely a big part of his success: "show up, be present and good things will happen."

Above: Arts alumn Nic Zdunich joined TRIUMF as a strategic communications associate in 2016.

LEGAL CLINIC EXPANDS SERVICE

BY CHRISTINE ANDERSON



TRU LAW STUDENTS WILL SOON

be able to serve more clients at the TRU Community Legal Clinic thanks to new funding from the Law Foundation of British Columbia (LFBC).

The LFBC recently announced \$225,000 in annual, ongoing funding for the clinic.

The part-time clinic—which offers free legal services for low-income populations in the Kamloops area was officially launched on April 1, 2016 with funding from TRU Law as well as a one-time grant from the LFBC.

"The new funding will allow us to expand to full-time hours, plus fill some additional staff positions," says supervising lawyer Ted Murray, adding that student positions will

nearly double from six to 10 or 12 per semester.

Although not limited to serving the elderly, the clinic currently draws about half of its client base from the Centre for Seniors Information. which houses the clinic. Murray notes discussions for an additional location near the university are also in the works.

He says a main focus of the clinic is residential tenancy issues.

"In advocating for the client, we might, for example, require a landlord to properly maintain a property, or get tenancy reinstated by challenging an eviction. We are able to attend residential tenancy hearings."

To date, over 200 clients have been served. Meanwhile, students benefit by earning academic credits and gaining practical experience.

Claire Armstrong was one of five students who spent part of the summer helping seniors and gaining practical experience as a student clinician.

"I feel so much more competent now," she says. "We get to work on files from start to finish and build a relationship with the client."

Above: TRU Law students will have more opportunities to put theory from classes like these into practice in the expanding Leaal Clinic.

CHAMPIONING RESEARCH IN ECOSYSTEM RECLAMATION

BY ANITA RATHJE



CANADA'S FIRST RESEARCH **CENTRE FOR** ecosystem

reclamation is closer to fruition. TRU's history of excellence in restoration ecology and sociological understanding of the environment, human health and economic wellbeing has helped garner three grants in support of a Natural Sciences and Engineering Research Council (NSERC) Industrial Research Chair (IRC) position.

In late 2015, Genome BC pledged \$250,000 toward the IRC: the Real Estate Foundation of BC contributed a further \$150,000 in April 2016; and New Gold, operators of the New

Afton mine west of Kamloops, pledged \$200,000 in June 2016. Several other industry partners have also expressed interest. Each organization's contribution is eligible to be matched by NSERC on a oneto-one basis.

"These investments allow TRU to be at the forefront in the development of tools to help solve environmental disturbances caused by mining, forestry and ranching solutions that are more pressing than ever in the face of climate change," says Dr. Lauchlan Fraser, professor of natural resource science and candidate for the IRC position.

The research chair will support the development of industry-based solutions to environmental challenges.

"New Gold has partnered with TRU to continue research in the area of reclamation over a five-year period," says Scott Davidson, manager of environment, social responsibility and tailings at New Gold's New Afton mine. "Working locally on initiatives like this helps to build capacity in the community and leaves behind a positive legacy. We are proud to support applied research with TRU and build on our ongoing relationship with the university."

The Centre for Ecosystem Reclamation at TRU would add innovative strategies to restoration management plans—such as using genetic tools to establish biodiversity and ecosystem function baselines. Reclamation solutions will be developed in consultation with local Aboriginal communities, including the use of native plant species to restore traditional land use.

"Sustainable management means that we meet our immediate needs without compromising the needs of future generations, including environmental, social and economic needs," says Fraser.

Above: Lauchlan Fraser engages Natural Resource Science students in reclamation research.

MOVING AGAINST THE FLOW

BY ANITA RATHJE

AN EMERGING LEADER IN

APPLIED mathematics is bringing interdisciplinary vigour to TRU's research in engineering, big data, and optimization and decision science.

Dr. Yana Nec. the new Canada Research Chair in Applied Mathematics and Optimization in the Faculty of Science, focuses on the use of mathematics to find solutions to unconventional problems including ecological issues faced by our region and nation. Nec joins TRU from New Brunswick's Mount Allison University.

Specializing in partial differential equations, Nec develops mathematical tools to explain complex natural phenomena, from gas flow in landfill facilities to the dispersion of atmospheric pollutants, to signalling processes during immune responses.

"Accurate mathematical modelling of natural phenomena allows for better understanding of the world around us. and consequently leads to informed choices about our interactions with the environment," says Nec.

Her expertise bridges mathematics and engineering, blending theory and applied knowledge—a rare combination in academia. "I like solving problems that are deemed conceptually unclassifiable within classic notions of either mathematics or engineering."

Nec says that her interests tend toward promoting "completeness" in its many forms.

"It can be the investigation of pattern formation in settings that are often deemed esoteric. It can be utilization of data collected by an industrial company to their full research potential. It can be creating analogies or connections between things that are not usually compared."

She anticipates partnering with local industry that work with flowing matter—from stack emissions to dam control and from printer ink to dispersal of species to landfill gas collection.

From top: Yana Nec's research models complex patterns such as those formed by chemical reactions. Nec at the CRC announcement Dec. 6.





Canada Research Chairs

TRU'S RESEARCH CAPACITY WAS ACCELERATED in 2016 with the appointment of four Tier 2 Canada Research Chairs (CRCs) in science, arts, tourism and social work. It's the first time in a decade that TRU has had four CRCs in place simultaneously.

Together, they represent a \$2 million investment from the federal Canada Research Chairs Program, along with an additional \$241,000 infrastructure investment from the Canada Foundation for Innovation.

Created in 2000, the CRC program invests approximately \$265 million annually to attract and retain some of the world's most accomplished and promising researchers. CRCs work at over 70 postsecondary institutions across Canada in a wide range of fields. Tier 2 CRCs are identified as exceptional emerging researchers, acknowledged by their peers as having the potential to lead in their field.

THE CHILD AS WITNESS

BY DANNA BACH

AS VICTIMS OF OR WITNESSES to crime, children have a vital role to play in the criminal justice system. Dr. Heather Price wants to ensure that when children are involved, the

evidence they provide is as strong as possible.

"We haven't done a good enough job helping kids provide evidence, and if we don't do a good enough job, bad things may continue to happen to them," says Price, Canada Research Chair in Culture and Communities: Children and the Law in the Faculty of Arts. She is one of a handful of experts in North America on memory and children as witnesses within the legal system.

Price grew up in BC's Kootenays region and acquired her undergraduate degree at the University of Victoria before moving to Simon Fraser University to complete her master's degree and PhD. She arrived at TRU in 2016 from the University of Regina, where she had spent nine years as an associate professor of psychology.

The primary focus of her research rests on basic memory, investigative interviewing and perceptions of children. Often, we expect children to be less truthful-more likely to be dishonest—than adults, but research shows that's not the case, says Price.

"What can we expect children to be able to recall? How can we get that memory out of them?" She says how we question children and how we evaluate the accuracy of a statement once we have it, are the questions that drive her research.

Price can often be found in her newly-developed Children and the Law Laboratory at TRU and expects to work with local law enforcement, social workers and teachers. In Regina, she worked with RCMP and Regina Police on how to effectively question children, and she anticipates continuing this focus in Kamloops. She is actively seeking local families to participate in her research program.

"Ultimately, we want to discover the type of evidence children are capable of providing, and help those involved in the legal system to obtain that evidence," says Price.

"In doing so, we can reduce the anxiety and fear children experience when they participate in the justice system."

Below: Research by Heather Price will improve how effectively the justice system obtains evidence from children.







MASON SET TO GO GLOBAL

BY DANNA BACH & DAWN-LOUISE MCLEOD

DR. COURTNEY MASON IS **POISED** to take the results of his earlier research with rural Canadian Indigenous communities to a global level.

As the Canada Research Chair in Rural Livelihoods and Sustainable Communities in the Faculty of Adventure, Culinary Arts and Tourism, Mason is expanding on TRU's collaborative relationships with Aboriginal communities to conduct research on health initiatives, tourism development and food security.

His latest project, funded by a Social Sciences and Humanities Research Council (SSHRC) Insight Development Grant, compares Indigenous peoples' experience of displacement from parks and protected areas in Canada and New Zealand. It builds on his doctoral research, which assessed the impacts of displacement from these lands on Canadian Indigenous communities specifically, how displacement

links to contemporary issues in community education and health.

After working alongside the Nakoda peoples of the Banff-Bow Valley in western Alberta, Mason wrote Spirits of the Rockies: Reasserting an Indigenous Presence in Banff National Park (2014). He learned that although tourism and the formation of Banff National Park helped justify the displacement of local Indigenous peoples, the Nakoda eventually negotiated a return to the park through their involvement in regional tourism.

Mason's new co-edited book. A Land Not Forgotten: Indigenous Food Security and Land-Based Practices in Northern Ontario (2017), examines the consequences of disruptions in local food practices on the health of Indigenous peoples in Canada's rural north.

"The relationships I formed during this time were transformative," Mason comments. "Research—whether into health

initiatives, tourism development or food security—requires working collaboratively with community members and band councils to understand their concerns and best serve their interests."

In New Zealand, he is collaborating with Māori scholars and communities on their management of national parks and protected areas.

"This appointment as a CRC gives me the time to further develop these relationships to ensure projects meet the needs of communities and the responsibilities of ethical researchers," he says.

The results of this new research will have national and global relevance in the development of Indigenous lands and resources.

From left: Indigenous peoples in Canada and New Zealand have been displaced in the creation of national parks like Banff. CRC Courtney Mason.





DREAM CATCHER

BY DANNA BACH





IN DECEMBER, TRU ANNOUNCED

Dr. Shelly Johnson (Mukwa Musayett) would be joining the Faculty of Education and Social Work as the country's first Canada Research Chair (CRC) in Indigenizing Higher Education.

"Stepping into this role is an honour," says Johnson. "It is the dream job that I have been waiting for my entire academic life."

The development of a CRC position in this field was driven by the recommendations of the Truth and Reconciliation Commission and by TRU's commitment to increasing intercultural understanding—TRU's Strategic Research Plan emphasizes Aboriginal understanding as one of its five key themes.

"The way Indigenous people approach research is like a ceremony, and within that are many protocols of respect, honour and reciprocity," Johnson says. "This is an opportunity to research and teach about our

ways of knowing, being and doing. As Indigenous peoples, we have a lot to share that can strengthen institutions for us all."

Saulteaux from Saskatchewan's Keeseekoose First Nation, Johnson is a recognized leader in Indigenous research methods and leadership. She took on her new role as CRC in January 2017 after more than four years as an assistant professor in the School of Social Work at the University of British Columbia. She currently holds \$3 million in research grants on projects to develop capacity in urban Aboriginal communities, with a focus on culture and language revitalization, child welfare and justice issues. Broadly, her research interests are in international Indigenous research methodologies, restorative child welfare practices and transformative healing through Indigenous cultural practices.

"I want to do meaningful research. I'm not interested in dead research that sits on a shelf. It must be forward-thinking and inclusive and be an extension of the practice that I've had in the province for 25 years," she says.

Johnson acknowledges that she's a visitor to the Secwepemc territory and, as such, seeks support for her research.

"I plan to visit the Nations, meet with leadership and grassroots people and learn about research that could be meaningful to them," she says. "The creation of this role makes a critical academic statement to Indigenous peoples. It's a privilege and a responsibility to carry it forward in a respectful way."

From left: First Nations children at the Kamloops Indian Residential School, 1958, (Basil Fox/The Kamloops Sentinel/Library and Archives Canada/PA-185655). CRC Shelly Johnson.



A CIRCLE OF SUPPORT

BY ANITA RATHJE

WHILE TRU FOUNDATION **AWARDS OFTEN** recognize students for the heights of academic achievement, bursaries—awarded to those in financial need—can make all the difference to a student realizing her or his potential at TRU.

Carl and Leslie Sulkowski, Kamloops insurance brokers since 2001, believe that the foundation of any community is found within the trades. Seeing the increasing need for skilled tradespeople, they recently established a \$100,000 endowment which, among other programs, supports trades students who require tools or equipment for their program.

"What better way to give back to the community that supported our success than to help others achieve their own goals?" says Carl.

In recognition of their support, the Sulkowskis were inducted into the President's Circle in September.

Dr. Bas Gowd and Shankaramma Gowd, who have been contributing to the Foundation since 1994, were also inducted. Dr. Gowd sat on the Foundation Board for ten years.

Three endowments established by the Gowds create bursaries awarded annually to a Bachelor of Science and Bachelor of Science in Nursing student, a Bachelor of Social Work or Human Service student, and a female First Nations student.

Dr. Gowd is inspired by the message of Indian guru, spiritual leader and philanthropist Sathya Sai Baba: "Love all, serve all, help ever, hurt never."

Above: New President's Circle inductees. Bas and Shankaramma Gowd and Leslie and Carl Sulkowski.

BIG DREAMS IN LASER FOCUS

BY ANITA RATHJE

THE FAR-REACHING **APPLICATIONS OF PHYSICS** drew Natascha Hedrich into the field and halfway around the world.

A Bachelor of Science alumna (14) who grew up near Kamloops, Hedrich took advantage of every opportunity to experience undergraduate research, beginning a learning trajectory that has taken her all the way to Switzerland.

Now a few months into a PhD in physics at the University of Basel, Hedrich began her double major at TRU in physics and honours mathematics with graduate school in her sights. Ranked as TRU's top science student, she was a threetime recipient of the Alvin and Lydia Grunert Scholarship, and won the Ken Lepin Award for Academic Achievement in Science. Awards paid the way for Hedrich to focus on her studies.

At a co-op term at the TRIUMF particle physics laboratory in 2011, she had her first taste of applied research. Two years later, thanks in part to that experience, she was one of only five Canadian undergraduates selected for a two-month summer internship, conducting research at CERN, the European Organization for Nuclear Research in Geneva.

"Participating in cutting-edge Higgs boson research at the Large Hadron Collider was a highlight of my undergrad," says Hedrich. "But after my CERN internship, I realized I wanted to work hands-on rather than on a computer all day."

In fourth year, an independent research project funded by the



Undergraduate Research Experience Award Program (UREAP) allowed her to explore the practical applications of physics.

"From that opportunity, I discovered I was most interested in experimental work," she says. The project also gave her an edge when she applied to graduate programs with Switzerland on her radar.

Hedrich accepted an offer from ETH Zurich, one of the world's top-ranked universities and alma mater of physicist Albert Einstein. She soon found her passion in a course on solid state physics mixed with optics (lasers). Completing her master's thesis in optics in September 2016, she followed that passion to Basel's optics lab, specializing in diamond sensing.

Her PhD research uses a type of defect in diamonds called nitrogenvacancy centres to sense magnetic fields in materials, and map these magnetic structures. The research has the potential to find new magnetic memory solutions for computers.

"It's fundamental physics, looking at possibilities, new concepts," she says. "The ultimate goal of the field is to manipulate these magnetic structures to create hard drives that are significantly smaller, faster and more efficient."

Hedrich never imagined her choice of career would lead her to Switzerland, but when she finishes her PhD in four or five years, she plans to continue her work there.

"It's surreal—going to Paris for the weekend," she says, still sightseeing on weekends and amazed by the proximity to the rest of Europe. "There's lots of research and development going on in Switzerland. I want to apply what I've learned in a practical way."

Above: Academic achievements have propelled Natascha Hedrich to graduate study in Switzerland.

TWENTY-FIVE YEARS OF GALA

BY ANITA RATHJE

1. Over its 25-year history, the TRU Foundation Gala has been one of the most spectacular ways to raise funds to support student financial aid and awards, and celebrate the generosity of major TRU donors—such as Mark and Ellen Brown, who pledged \$2 million in 2010 toward the construction of the

Brown Family House of Learning and student success.

2. From Pirates of the Caribbean (2007) to An Evening in Wonderland (2015), each gala theme inspires unique sets and décor, food, costumes, raffle prizes and entertainment—such as

performances from *Alice's Adventures* in *Wonderland* by Project X Theatre.

3. A glittering Rio Carnivale atmosphere set the stage in 2014 for the largest private pledge to the Foundation, a \$2.25 million gift from Ken Lepin.



- 4. Past Culinary Arts creations included glazed quail with black currants and brandy (An Evening in Paris, 1998). This year, Aramark's chef offered Ursula's Delight—poached lobster. A tasting is held in November with Foundation board members and VIP guests.
- **5.** Nine months of preparations by the Office of Advancement's nine-member gala committee go into each event, and setup itself takes three days with the help of tourism students.
- 6. Despite a challenging economy, the Kamloops community has continually shown its support in sold-out gala tickets, sponsorship, the silent auction and raffle tickets to benefit students.
- 7. Transformed by a giant Once Upon a Time castle set made by Greg Klohn from GK Sound, Gala's 25th anniversary celebration was made more magical by the anonymous donations of \$2.5 million in major gifts.

8. In 2009, Alvin Grunert took the stage to give \$1.5 million to create endowed scholarships for top students. He said, "If I can step up here and change the world tonight, what will you do tomorrow?"



EVERY SECOND COUNTS

BY KELLEY O'GRADY & NADA ANSALAHI

IN SWIMMING, A MILLISECOND

CAN make or break you. Just ask captain of the WolfPack swim team Jagdeesh Uppal, who truly makes every second of his day meaningful.

Uppal, who recently wrapped up his final season with the 'Pack, received the USport Male Swimmer Community Service Award at the national swimming championships for his outstanding community impact. He also received the TRU Board of Governors Recognition of Excellence Award and the Dr. Roger H. Barnsley Scholar Athlete Award while landing himself on the Dean's List six times.

Despite 6 a.m. swim practices and leading the team to nationals, he somehow still finds time to do groundbreaking medical research and volunteer at Royal Inland Hospital.

"You need to eat, sleep, breathe and plan every hour of your day

to make sure that nothing goes to waste," says Uppal.

The chemical biology major spent three months conducting research at the Indian Institute of Technology (IIT) in Roorkee, India last summer, funded by a Mitacs Globalink Research Award. He developed a compound to detect and track the progression of Alzheimer's disease.

"Experiences are invaluable, especially in university when you have the opportunity to go abroad, go to different universities and learn every day from PhD and master's students," says Uppal, noting that even seeing how research is conducted in one country vs. another is a learning experience in itself.

He has also been a valued asset to Chemistry faculty member Dr. Kingsley Donkor's research team.

"Jagdeesh has proven to be an outstanding researcher, who shows great initiative and dedication to his work," says Donkor. "It's been a pleasure mentoring such an excellent student."

Uppal graduates this spring with a Bachelor of Science and hopes to attend medical school.

"TRU has been the best four years of my life and I'm going to miss it," he says. "University is the best time to go out of your comfort zone and try new things. My friends keep me motivated and the professors are a help too."

Below: Scholar-athlete Jagdeesh Uppal is set to make a splash in medicine.



KILLIN' IT

BY KELLEY O'GRADY & NADA ALSALAHI

IULIIA PAKHOMENKO IS THE

MOST decorated female athlete to ever wear a WolfPack uniform, but the Ukrainian volleyball standout has a story even greater than her stat line.

The first and only female athlete at TRU to win the Canadian Interuniversity Sport (CIS) Player of the Year, she was also named a CIS all-Canadian twice. Canada West MVP and first-team conference allstar—all while completing a Master of Business Administration.

And while Pakhomenko was setting records in nearly every category, she was overcoming barriers that would be insurmountable to many.

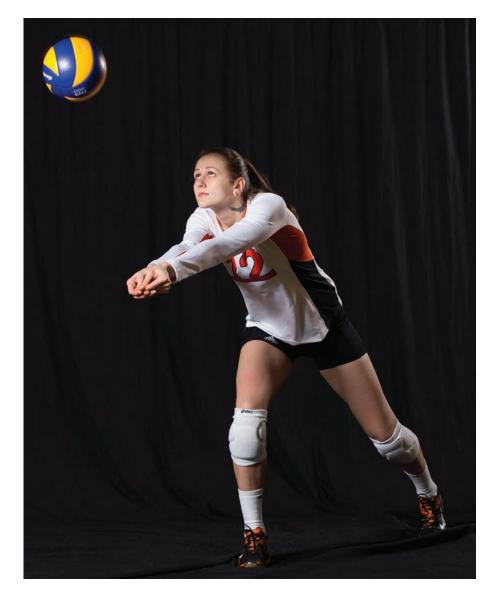
The 6 ft. 3 in. outside hitter, born and raised in the Ukrainian city of Druzhkovka, left her home to play volleyball at Northwood University in Michigan before coming to TRU in 2014—a time when her country and the family she left behind were facing extreme turmoil.

"I didn't know anyone here. I honestly thought, I'm not going to make it," says Pakhomenko.

Shortly after her arrival in Canada, hostilities reached a boiling point and her family decided to leave their homeland to seek safety in Russia. Pakhomenko was unable to contact her asylum-seeking family, knowing thousands had already been killed in the fighting.

"It was a really tough time for me. I had just come to Canada and I didn't know anyone who I could share this information with."

After finding out her family had found safety in Russia, Pakhomenko



took the CIS by storm, becoming the driving force behind the WolfPack women's volleyball program for the next three years.

"Here, I have the opportunity to have a better life, to be a successful person, a happy person," she says. "I'm honoured and I'm happy, and this has been one of the best experiences of my life."

Pakhomenko took to the classroom with the same tenacity as the court. Despite a hectic schedule, completing her MBA has always been her number one priority.

"School is always first," she says, when asked about balancing school and sport. "Knowledge will stay with you for the rest of your life. Volleyball gave me a ticket to a better life. If I wasn't playing this game I would never get my MBA and see the world."

Pakhomenko recently got married and will graduate from the MBA program in April 2017.

"I'm happy where I am right now," says Pakhomenko. After graduation, she plans to pursue a professional volleyball career.

Above: Iuliia Pakhomenko took a leap to succeed on and off the court.

GRASSROOTS ACTIONS FOR GLOBAL GOALS

Talks, panels, workshops and other events throughout IDays 2017 showcased one or more of the United Nations' 17 Sustainable Development Goals, to educate and motivate our community to join forces to create a better future for all by 2030.











3. Good Health and Well-Being



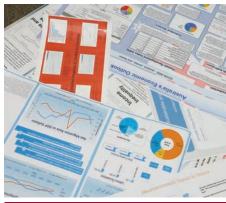




5. Gender Equality







8. Decent Work and Economic Growth



- Developing World Connections is bringing eco-stoves to Guatemala.
- Consumers can do their part to promote sustainable agriculture.
- Students get tips on healthy habits from the TRU Wellness Centre.
- Cindy Blackstock advocates for education equality for First Nations children.
- Dr. Soley-Beltran presents on gender images in fashion advertising.
- Environmental Issues in Tourism students discuss why water matters.

- 7. Leave your car at home—run errands from campus using Zipcar car-sharing.
- Posters of economic behavior presented by economics students.
- The Reach will bring university village living to campus.
- 10. Breaking down five common myths about Islam and Muslims.
- Jaimi Garbutt, City of Kamloops, connects community goals to SDGs.
- 12. Reduce food waste and improve soil quality with composting.

- 13. Students take the Sustainability Office's Zero Waste Challenge.
- 14. "People protect what they love," says aquanaut Fabien Cousteau.
- 15. Elder Loretta Seymour speaks on the sanctity and importance of fresh water at the Secwepemc Response circle.
- Understanding anti-corruption and bribery through role-playing.
- 17. IDays Mar. 7–10: a community coming together for intercultural understanding.









13. Climate Change



14. Life Below Water



15. Life on Land



16. Peace, Justice and Strong Institutions



17. Partnerships for the Goals

PATHWAYS FOR STUDENT SUCCESS

BY DAWN-LOUISE MCLEOD

THANKS TO RECENT **PARTNERSHIPS AND** agreements between TRU and other postsecondary institutions, TRU students can choose to accelerate their completion of a bachelor's degree.

As a member of the BC Transfer System (BCTS), TRU is mandated to facilitate student mobility between institutions and adhere to quality assurance principles and guidelines. Through its Strategic Partnerships department, TRU negotiates partnerships and agreements with the other 35 members of BCTS to increase credit transfer and degreecompletion options.

"I'm happy to say that TRU is leading the way in providing

unique pathways for students," says Donald Poirier, Director of Strategic Partnerships.

These pathways give TRU students credit for coursework they have completed elsewhere and strengthen their ability to gain the credentials they need to be competitive in the job market. Adherence to the BCTS principles and guidelines ensures that students receive an education that deepens their knowledge and expands their career possibilities.

"Articulation agreements have become an important option for many students, who are looking to respond to more demanding and changing work environments and to gain a different educational experience," continues Poirier. "The standard agreement is giving way to stronger relationships between institutions that purposefully design programs for compatibility."

Articulation is how TRU and other institutions function as a system to provide greater access to education, recognizing one another's courses and programs so that students receive credit for previously completed equivalencies. Partnerships and agreements delineate pathways from lower- to higher-level credentials. Students can begin their education at one institution and transfer their certificate or diploma to finish an undergraduate degree at an institution that is authorized to grant degrees.

By transferring previously earned credit from another institution to TRU. students can accelerate completion of the 120 credits generally required for a four-year undergraduate degree.

Prospective students can learn more about existing partnership pathways and compare programs offered by BCTS members by using the BC Transfer Guide, which gives specifics about credit equivalencies and transfer, and the Education Planner, which allows searches of over 2,100 undergraduate programs.

Left: Pathways at TRU through



partnerships and agreements work for on-campus and Open Learning students.











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Environmental Benefits Statement

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